Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing response, claims 1-22 and 26-34 are pending in the application, with claims 1, 6, 10, 16, 26, and 29-31 being the independent claims.

Based on the above claims and the following remarks, Applicant respectfully requests that the Examiner reconsider all outstanding rejections and that they be withdrawn.

Statement of Substance of Examiner Interview

Applicant's representative John R. Bednarz gratefully acknowledges the courtesies extended by Examiner Yogesh Paliwal in granting a telephone interview on February 15, 2012. During the interview, Applicants' representative requested clarification regarding the Examiner's interpretation of the applied art, including U.S. Patent No. 7,024,553 to Morimoto ("Morimoto") and U.S. Patent No. 5,499,298 to Narasimhalu et al. ("Narasimhalu"). The Examiner agreed that further consideration may be required regarding the teachings of Morimoto and Narasimhalu and that the applied art may not teach all features of the claims.

Rejections under 35 U.S.C. § 103

Claims 1 and 3

Claims 1 and 3 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,292,895 to Baltzley ("Baltzley") in view of U.S. Patent No. 5,923,754 to Angelo et al. ("Angelo"), Morimoto and further in view of Narasimhalu. Applicant respectfully traverses this rejection.

First, on page 3 of the Office Action, the Examiner notes that "[i]n response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., 'access rules' is used to protect K1 to KTAL before the header is unencrypted) are not recited in the rejected claim(s)...Applicant is arguing that Narasimhalu does not disclose access rules are used to protect document key before the header is unencrypted. However, current claim language does not require access rules to protect document key before the header is unencrypted. Therefore, the argument is not persuasive." However, Applicant respectfully disagrees. To clarify Applicant's argument, Narasimhalu fails to teach "access rules...protect the document key."

According to the claim features recited in claim 1, "the access manager is configured to require that the requestor use the private key pertaining to the predetermined time to access a document key in *an encrypted header* of a secured electronic file, a data portion of the secured electronic file which was previously secured using the document key, and wherein the header includes the document key and access rules for the secured electronic file, *the access rules configured to further protect the document key*." However, according to Narasimhalu, *a decrypted header* includes AW 37, TAL 38 and LAL 39, and they are not taught to further protect K_1 to K_{TAL} 41. AW, TAL and LAL are taught to merely protect the body.
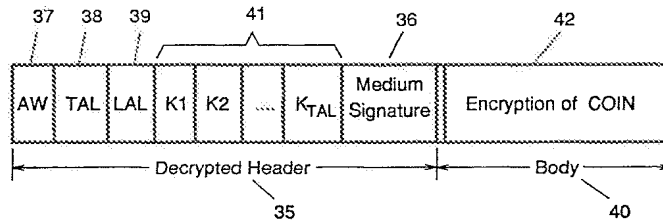
Figure 2

In the previous response, Applicant noted that AW, TAL and LAL do not protect K_1 to K_{TAL} before the header of Narasimhalu is unencrypted. In addition, they also do not protect K_1 to K_{TAL} after the header is unencrypted, because they merely protect the body. Applicant was merely pointing out that Narasimhalu's AW, TAL and LAL fail to protect K_1 to K_{TAL}, rather they work in conjunction with AW, TAL and LAL to protect the body. Figure 2 of Narasimhalu shows how the header is decrypted and the keys are in the clear. (Narasimhalu, 7:25-48, 7:61-65, FIG. 2 and FIG. 5A: "After the Controller 45 determines that the Information Consumer 30 has a right to access the sealed COIN on the distribution medium in FIG. 5A, the controller extracts in step 95 the encryption decryption key $K_{TAL-LAL+1}$ from the header 35.") Thus, Narasimhalu fails to teach "*an encrypted header* of a secured electronic file, a data portion of the secured electronic file which was previously secured using the document key, and wherein the header includes the document key and access rules for the secured electronic file, *the access rules configured to further protect the document key*."

The Examiner acknowledged on page 6 of the Office Action, that Baltzley, Angelo and Morimoto also do not teach these features. Thus, Narasimhalu, in combination with the other applied references, fail to teach or suggest "*an encrypted header* of a secured electronic file, a data portion of the secured electronic file which was

previously secured using the document key, and wherein the header includes the document key and access rules for the secured electronic file, *the access rules configured to further protect the document key*."

Additionally, regarding the rejection of independent claim 1, on page 6 of the Office Action, the Examiner notes that "Baltzley does not disclose a cryptographic key that pertains to a predetermined time, being uniquely generated each day." However, on page 6 of the Office Action, the Examiner relies on newly cited Morimoto to allegedly cure the deficiencies of Baltzley and notes that "Morimoto discloses cryptographic key that pertains to a predetermined time, being uniquely generated each day (see, Column 13, lines 1-9). Applicant respectfully disagrees.

Morimoto discusses a system and method for encrypted key updating in a wireless LAN system employing encryption by a WEP mechanism. (Morimoto, 1:5-10). It is known that WEP uses shared key encryption, i.e. symmetric key encryption. (Morimoto, 1:38-42). Further, Morimoto teaches an encrypted key updating method whereby a key management server sequentially updates four encrypted keys one-by-one each time a preset time period has elapsed. Encrypted key updating takes place at a rate of one encrypted key per week. Thus, a person carrying a portable device can access a wireless access point for up to four weeks. The length of time of the time period can be set by the key management server to be from anywhere from one day to one month depending on system requirements. (Morimoto, 12:15-23). In addition, Morimoto provides that "the first encrypted key is updated every three months, whilst the second to fourth encrypted keys are updated every day. By so doing, a person carrying the portable STA outdoors or outwards is able to access to the AP unobjectionably if the STA is

returned within three months, thus improving the convenience. Since the other three encrypted keys are updated every three days, these encrypted keys can be used for communication to improve the information confidentially." (Morimoto, 13:1-9). In other words, according to this embodiment, some of the WEP keys can provide more security and are updated more often while others are updated less often, but a person carrying the STA can access the AP using one of the WEP keys.

Applicant respectfully submits that Morimoto does not cure the deficiencies of Baltzley, Angelo and Narasimhalu. As discussed during the interview, Morimoto also teaches another embodiment that includes *updating* a WEP key, which is a symmetric key, and does not say that the WEP keys are uniquely generated each day, rather Morimoto provides an example teaching of updating the WEP keys every four days. (Morimoto, 12:15-26: "[a]s a first exemplary encrypted key updating method, the key management server sequentially updates the four encrypted keys one-by-one each time a preset time period has elapsed. Specifically, encrypted key updating is performed at a rate of one encrypted key, e.g. per week. By so doing, the respective encrypted keys are *updated once every four weeks*...The length of time period can be set by the key management server to...*one day*.

Thus, Morimoto teaches updating all symmetric WEP keys every four days and updating a different WEP key every day in an access point, but does not teach "at least one of the *cryptographic key pairs* pertaining to a predetermined time, *being uniquely generated each day*." Morimoto does not say that updating includes generating, rather it appears that Morimoto generates the keys in a batch, stores the batch and updates the keys in the APs with the stored batches. (Morimoto, col. 15, lines 5-30). Thus,

Morimoto, in combination with the other deficient references, may not be interpreted to teach "cryptographic key pairs [which] include a respective public key and a respective private key, at least one of the *cryptographic key pairs* pertaining to a predetermined time, *being uniquely generated each day*." Thus, Applicant respectfully submits that Morimoto fails to cure the deficiencies of Baltzley, Angelo and Narasimhalu. Furthermore, given that Morimoto's teachings only relate to symmetric (WEP) key encryption, Applicant submits that one of ordinary skill in the art at the time of the invention would not have looked to Morimoto for motivation, and thus Morimoto fails to render the features of claim 1 obvious.

During the interview, the Examiner indicated that further review of Morimoto would have to be conducted, but that it appeared that Morimoto fails to cure the deficiencies of Baltzley, Angelo and Narasimhalu. Thus, claim 1 distinguishes over Baltzley, Angelo, Narasimhalu and Morimoto, taken alone or in combination.

For at least the aforementioned reasons, claim 1 and dependent claim 3 are not rendered obvious. Accordingly, Applicant respectfully requests the reconsideration and withdrawal of the rejection of claims 1 and 3.

Claims 2, 4 and 5

Claims 2 and 4-5 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Baltzley in view of Angelo, Morimoto, Narasimhalu, and further in view of U.S. Patent No. 6,603,857 to Batten-Carew et al. ("Batten-Carew"). Applicant respectfully traverses this rejection.

Claims 2, 4 and 5 depend upon independent claim 1 and distinguish over Baltzley, Angelo, Morimoto and Narasimhalu for at least the reasons provided above.

On pages 8-9 of the Office Action, the Examiner notes that Batten-Carew teaches "a system wherein a document security system further comprises: at least one client module, said client module configured to select the predetermined time and secure the electronic file using the public key of the at least one of the cryptographic key pairs pertaining to the predetermined time so as to provide a time-based access restriction to the electronic file (Fig. 4)." However, Batten-Carew does not cure the deficiencies of Baltzley, Angelo, Morimoto and Narasimhalu described above.

Thus, dependent claims 2, 4 and 5 distinguish over Baltzley, Angelo, Morimoto, Narasimhalu and Batten-Carew, taken alone or in combination and Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 2, 4 and 5.

Claims 6-13, 15-17, 20-22 and 26-31

Claims 6-13, 15-17, 20-22, and 26-31 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,892,306 to En-Seung *et al.* ("En-Seung") in view of Narasimhalu and Morimoto. Applicant respectfully traverses this rejection.

Independent claims 6, 10, 16, 26, 29, 30 and 31 each recite *inter alia*, similar features to those discussed above with regard to claim 1. Thus, claims 6, 10, 16, 26, 29, 30 and 31 distinguish over Narasimhalu and Morimoto for similar reasons as claim 1, and further in view of their own respective features.

On page 11 of the Office Action, the Examiner notes that "En-Seung discloses an apparatus, a corresponding method and a corresponding computer program for controlling the release of time-sensitive information."

However, En-Seung does not cure the deficiencies of Narasimhalu and Morimoto that are discussed above. Accordingly, claims 6, 10, 16, 26, 29, 30 and 31 distinguish over En-Seung, Narasimhalu and Morimoto, alone or in combination. Claims 7-9, 11-13, 15, 17, 20-22, 27 and 28 depend from the above-discussed independent claims distinguish over En-Seung, Narasimhalu and Morimoto for at least the same reasons as the independent claim they depend upon and further in view of their own respective features.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 6-13, 15-17, 20-22, and 26-31.

Claims 14, 18 and 19

Claims 14 and 18-19 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over En-Seung in view of Narasimhalu and Morimoto and further in view of Batten-Carew. Applicant respectfully traverses this rejection.

Claims 14, 18 and 19 depend upon independent claims 10 and 16 and distinguish over En-Seung, Narasimhalu and Morimoto for at least the reasons provided above.

On page 24 of the Office Action, the Examiner notes that Batten-Carew teaches "obtaining a time-based access key that specifies an access time as a specified day of a year and further comprising obtaining a different unique time-based access keys for a plurality of different days of the year (see, Fig. 2 and Column 3, lines 34-40.)"

However, Batten-Carew does not cure the deficiencies of En-Seung, Narasimhalu and Morimoto, which are described above. Accordingly, claims 14, 18 and 19 distinguish over En-Seung, Narasimhalu, Morimoto and Batten-Carew, taken alone or in combination. Applicant respectfully requests reconsideration and withdrawal of the rejection of claims 14, 18 and 19.

Claims 32-34

Claims 32-34 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over En-Seung in view of Narasimhalu and Morimoto and further in view of U.S. Patent No. 6,851,050 to Singhal *et al.* ("Singhal"). Applicant respectfully traverses this rejection.

Claims 32-34 depend upon independent claims 6, 26 and 29 and thus distinguish over En-Seung, Narasimhalu and Morimoto for at least the reasons provided above.

On page 26 of the Office Action, the Examiner notes that "Singhal discloses a condition where prior to generating a key, system check to see the key is already generated and only generates a new key if one does not exist (see Column 18, lines 30-60).

However, Singhal fails to cure the deficiencies of En-Seung, Narasimhalu and Morimoto described above. Thus, claims 32-34 distinguish over En-Sueng, Narasimhalu, Morimoto and Singhal, taken alone or in combination. Additionally, on pages 19-20 of the previous reply, Applicant provided additional arguments regarding the distinguishing features of claim 32. However, it does not appear that the Examiner considered the remarks, contrary to M.P.E.P. 707.07(f): "[w]here the applicant traverses

any rejection, the examiner should, if he or she repeats the rejection, take note of the

applicant's argument and answer the substance of it." For the convenience of the

Examiner, those remarks are provided in their entirety below and Applicant respectfully

requests consideration of these additional remarks:

> In particular, claim 32 recites "determining whether a time-based access
> key is already available for a predetermined time, otherwise generating a
> time-based access key for the predetermined time." On page 24 of the
> Office Action, the Examiner cited to column 18, lines 30-60 of Singhal.
> Singhal merely teaches a client communicating with an access point. The
> client obtains a session key if one does not exist to enable link-level
> encryption. (Singhal, 18:30-60). However, claim 32 is not directed to
> checking to see if the time-based key exists, but whether it is available.
> Singhal is unrelated to the features recited in claim 32 and fails to cure the
> deficiencies of En-Seung, Narasimhalu and Batten-Carew.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of
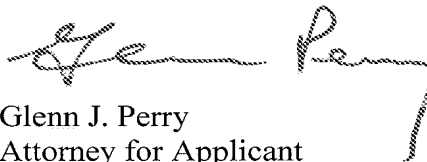
the rejection of claims 32-34.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

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